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New *Gesneriaceæ* from tropical West Africa

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Summary : A new genus and species, *Nodonema lineatum* B. L. Burtt, is decribed from SE Nigeria and SW Cameroun : it is distinctive in its rosulate habit with few long-petiolate radical leaves, small stamens arising from the very base of the corolla-tube, and subglobose fruit. A second species of *Acanthonema*, differing from *A. strigosum* Hooker f. in its smaller flowers, is accepted and identified with *Carolofritschia diandra* Engl. ; the new combination *Acanthonema diandrum* (Engl.) B. L. Burtt is made.

Résumé : Un genre monospécifique nouveau (*Nodonema*) est décrit des confins du Nigeria et du Cameroun ; la plante (*N. lineatum* B. L. Burtt) se distingue par une rosette de quelques feuilles longuement pétiolées, ainsi que par des étamines insérées à l'extrême base du tube corollin et par un fruit subglobuleux. Une seconde espèce du genre *Acanthonema*, à fleurs plus petites, est acceptée ; elle est identifiée à *Carolofritschia* et la combinaison *Acanthonema diandrum* (Engl.) B. L. Burtt est établie.

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The preparation of the account of *Gesneriaceæ* for the *Flore du Cameroun* has led to the recognition of a new genus, *Nodonema* which has been collected both in SW Cameroun and in SE Nigeria (Ogoja Province). In addition a second species of the hitherto monotypic genus *Acanthonema* Hooker f. is accepted ; this is the plant previously described as *Carolofritschia diandra* Engler and becomes *Acanthonema diandrum* (Engl.) B. L. Burtt. *Nodonema*, *Acanthonema* and *Trachystigma* C. B. Clarke (endemic to Gabon, where both species of *Acanthonema* also occur) form a small group of *Gesneriaceæ-Didymocarpeæ* endemic to the lands around the Gulf of Guinea. Although this Guinean area is far less rich in species than tropical East Africa, it now has a greater diversity of genera. Both areas have representatives of *Streptocarpus* and *Schizoboea*, but East Africa has only *Saintpaulia*- and *Linnæopsis* as endemic genera to set against *Acanthonema*, *Nodonema* and *Trachystigma* in the Guinean area.

NODONEMA B. L. Burtt, *gen. nov.*

Genus monotypicum inter genera africana tribus Didymocarpearum, *habitu tenuiter rhizomatoso, foliis petiolatis, staminibus brevioribus imo basi corollæ tubi orientibus, filamentis apice in dentem haud prolongatis, antheris in filamentis rectis, capsula subglobosa distinguitur.*

Type species : *Nodonema lineatum* B. L. Burtt.

Nodonema lineatum B. L. Burtt, *sp. nov.*

Herba rhizomate tenui in saxis muscosis incola. Folia omnia radicalia, pauca ; petiolus 2-6 cm longus, patenter pilosus ; lamina 3-10 cm longa, 2.5-6.5 cm lata, late elliptica, ovata vel ovato-suborbicularis, apice obtusa, basi leviter et inæqualiter cordata, marginibus serratodentatis, supra pilosa (pilis in vivo erectis ?), infra præcipue ad nervos pilis similibus sed paulo brevioribus induta, nervis lateralibus subopppositis ascendentibus utrinsecus ad 6, subtus prominulis proedita. Inflorescentiæ axillares, paucifloræ, pedunculo communi patenter piloso ad 3 cm longo ; bracteæ minimæ ; pedicelli bini, leviter inæquales, 1-3 cm longi, uti pedunculus pilosi. Calyx fere ad basin 5-fissus ; segmenta 3.5 mm longa, basi fere 1 mm lata, anguste triangularia, pilosa. Corolla albida in fauce purpureo-lineata, ca. 12-15 mm longa, infundibularis adaxialiter paulo ampliata (breviter digitaliformis), tubo ad 7 mm externe glabro lobis tenuiter pilosis ; lobi superiores ca. 2.5 × 2 mm, laterales et medianus usque ad ca. 5 × 5 mm. Stamina 2, e basi corollæ tubi orientia ; filamenta 1.5 mm longa, recta, glabra ; antheræ (corollam leviter cohærentes ?) fere 1 mm longæ et latæ, thecis rectis basi leviter divergentibus a filamento liberis. Discus obsoletus. Ovarium 1 mm longum, 0.75 mm basi latum, subglobosum, abrupte in stylum angustatum, pilosum ; stylus 3.5 mm longus, inferne pilosus, superne glaber ; stigma parvum, capitatum. Capsula (vix matura) subglobosa, ca. 4 × 3 mm, pilosa.

Type : *Letouzey 13873*, Cameroun, crête du Nta Ali (1266 m), entre cotes 1009 et 1202, 30 km SE Mamfe (holo-, P ; iso-, E, YA).

Other material : *Hall 2946*, Nigeria, Prov. Ogoja, Boshi Extension F.R., 1700 m, 18.6.1973, IFE! ; *Medler 899*, Nigeria, Prov. Ogoja, Obudu Cattle Ranch, 5150 ft., at the Grotto, 18.8.1973, K! ; *Medler 836*, Nigeria, Prov. Ogoja, Obudu Cattle Ranch, 5000 ft., south of ranch at cataract, 17.8.1973, K! ; *Sanford & Daichei WS 7379*, Nigeria, Prov. Ogoja, Obudu Cattle Ranch, falls, 12.7.1974, K!.

It is the short subglobose fruit of *Nodonema* that is eventually seen as the most outstanding feature of the genus and it is most unfortunate that the only ones seen are too young to shew the mode of dehiscence. The rhizomatous and rosulate habit, long-petiolate cordate leaves and corolla with short stamens arising right at the base of the tube, the absence of any apical tooth on the filaments are other salient characters that distinguish *Nodonema* from its geographical neighbour, *Acanthonema*. The fruit however, is unique amongst African members of the tribe *Didymocarpeæ* (to which all African *Gesneriaceæ* except *Epithema* belong). In *Acanthonema* the fruit is short, but it is ovoid-conical and sharply pointed as it is in a few extra-African genera of *Didymocarpeæ*. There is no indication that *Nodonema* has a close affinity with any of these extra-African genera, and, despite the marked differences, it is probably as closely allied to *Acanthonema* as it is to any other known genus. It increases the diversity but does not break the unity of the African *Didymocarpeæ* (cf. Hilliard & Burtt, 1971, p. 116). The name *Nodonema* (toothless filament) calls attention to one of the characters that marks the genus as distinct from *Acanthonema*, but is in a form that will recall their affinity.

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Acanthonema diandrum (Engl.) B. L. Burtt, *comb. nov.*

— *Carolofritschia diandra* Engl., Bot. Jahrb. 26 : 362 (1899).

Syntypes : *Staudt 118*, Cameroun, um Lolodorf, Marz 1895 (B, *delet.* ; BM) ; *Zenker 1381*, zwischen Lolodorf und Carantschiamasdorf, Mai 1907 (B, *delet.* ; BM, E, P).

OTHER MATERIAL EXAMINED : *J. & A. Raynal 10103*, Cameroun, Mendoum, 19 km S de Ambam, Fév. 1963 (P, YA) ; *Letouzey 9305*, Cameroun, 5 km SW de Ebianemeyong, près Nyabessan (60 km E de Campo), 10 Avr. 1968 (P, YA) ; *Le Testu 8959*, Gabon, Woleu N'tem, Syeen, 3.12.1932 (P, BM) ; *Jacques-Félix 5513*, Gabon, Woleu N'tem, Oyem, 11.1940 (P).

I refrain from designating one of the above syntype duplicates as lectotype, since all the specimens I have seen are without corollas. It may be that a flowering duplicate of one of them will eventually be found : it should then be chosen as lectotype.

Acanthonema was originally described as having four fertile stamens, and it was no doubt this that led ENGLER (1899) to describe *Carolofritschia* as an independent genus. BAKER & CLARKE (1906) realized that the number of fertile stamens was not a stable character and they correctly reduced *Carolofritschia* to *Acanthonema*. However, they suggested that it was the diandrous condition that was irregular : they also thought that it was the anticous stamens that were then reduced to staminodes. They were mistaken on both counts. The genus normally has only 2 fertile stamens, and these are the anticous pair.

Once the generic reduction was made only a single species of *Acanthonema* was recognized. The existence of a second, small-flowered, species was suggested by Dr. H. HEINE in January 1963, when examining herbarium specimens collected by Le TESTU in Gabon. A month later J. & A. RAYNAL were on a field trip in Cameroun and they recognized two sorts of *Acanthonema*, and A. RAYNAL made valuable water-colour sketches. Subsequently R. LETOUZEY also recognized two species and made carefully annotated collections. The differences between the two species are not very great. The single character that can be easily observed in herbarium material is corolla size : 22-25 mm long in *A. strigosum*, 10-13 mm in the second species.

The acceptance of two species of *Acanthonema* called into question the specific identity of *Carolofritschia diandra* with *Acanthonema strigosum*. Unfortunately the syntypes of *C. diandra* were destroyed in the Berlin fire, and the duplicates I have seen are all without corollas. We are therefore forced to reply on ENGLER's original description. He says quite clearly that the corolla is about 1 cm long : that is the size found in the second, smaller species. The epithet from *C. diandra* is therefore adopted for it.

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